

REMARKS

Claims 1, 2, 5-17, 22-27 are pending in the present application. In the Office Action mailed September 28, 2006, the Examiner rejected claims 11, 12 and 22 under 35 U.S.C. §102(b) as being anticipated by Myers (USP 4,470,030). The Examiner next rejected claims 13-17, 23-27 under 35 U.S.C. §103(a) as being unpatentable over Myers.

Claims 1, 2, 5-9, 28 and 29 were indicated as containing allowable subject matter. Such indication is appreciated. Since claim 10 depends from claim 8, claim 10 is also believed to be allowable, pursuant to the chain of dependency.

In regard to the rejection of claim 11, the Examiner stated that Myers teaches a permanent magnet that attracts a moveable armature within a coil “when the coil is de-energized and magnetically repels the armature when the coil is energized” as claimed. In particular, the Examiner cited to column 5, lines 10-26 of Myers, explaining that “when the coil [of Myers] is de-energized, the magnet latches the armature and when the coil is pulsed, the magnet repels the armature.” *Office Action*, 09/28/06, pgs 2-3. Applicant has amended claim 11 to recite “a return spring positioned to bias the armature in cooperation with the magnetic attraction of the permanent magnet” to illustrate distinctions between the system of Myers and that of the present invention.

According to Myers, an “external retraction spring or force, not shown [in Fig. 5], must of course be sufficient to retain the armature 128 in its unenergized position as shown when the power is removed from the coil.” *Myers*, Col. 5, lns. 19-22. Once the coil 113 is energized and the armature 128, 130 is actuated downward towards the plate 114, “the magnet 160 will retain the armature in the moved position against the restoring force of a return spring, until the coil 113 is pulsed in the opposite sense.” *Myers*, Col. 5, lns. 22-26. In other words, the return spring of Myers biases the armature 128, 130 into a de-energized/return state in opposition to the magnetic attraction of the permanent magnet 160. Myers does not teach or suggest that the magnet and return spring operate in cooperation, as presently claimed. As such, Applicant respectfully requests that the rejection of claim 11 and all claims depending therefrom be withdrawn.

Claim 22 calls for “a first magnetic circuit between a movable plunger and a permanent magnet ... when a single coil of wire is not energized” and “a second magnetic circuit between the plunger and a stationary attracting member ... when the single coil of wire is energized.” In rejecting claim 22, the Examiner indicated that a first magnetic circuit exists in the system of Myers between the armature 128, 130 and the magnet 160 and that a second magnetic circuit exists between the armature 128, 130 and the base 114. However, claim 22 also recites that “the

plunger is linearly spaced from the stationary attracting member by the first magnetic circuit.” Since the magnet 160 of Myers attracts the plate 130 of the armature (downward as shown in Fig. 5), the purported “first magnetic circuit” identified by the Examiner does not space the armature 128, 130 from the base 114. Therefore, Myers does not teach or suggest each and every limitation of claim 22. Applicant respectfully requests withdrawal of the rejection of claim 22 and all claims depending therefrom.

Applicant has amended claim 23 to recite “a shunt positioned a distance from the permanent magnet, wherein the distance is selected to cause a desired decrease in the attraction between the armature and the permanent magnet.” Applicant believes that the subject matter recited in claim 23 is not taught or suggested by Myers, and respectfully requests withdrawal of the rejection of claim 23 and all claims depending therefrom.

In addition, Applicant has made a clarifying amendment to allowed independent claim 28. Applicant believes that the subject matter which was found to distinguish over the art of record remains. The clarifying amendment is intended to clarify that the distance between the shunt components is modifiable from one design to another.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1, 2, 5-17, 22-29.

Applicant appreciates the Examiner’s consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

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¹The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.